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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,335	12/23/2005	Makoto Ikeda	KNJ-215-A	3618

21828	7590	10/10/2007
CARRIER BLACKMAN AND ASSOCIATES		
24101 NOVI ROAD		
SUITE 100		
NOVI, MI 48375		

EXAMINER	
GRAMLING, SEAN P	

ART UNIT	PAPER NUMBER
2875	

NOTIFICATION DATE	DELIVERY MODE
10/10/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/562,335	IKEDA ET AL.	
	Examiner	Art Unit	
	Sean P. Gramling	2875	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/23/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-3 and 5-6** are rejected under 35 U.S.C. 102(b) as being anticipated by *Patel et al* (EP 1085256).

3. Regarding claim 1, *Patel* discloses a light guide 10 (see Figure 1) having an end face (back face), an emitting face and two internal side faces 35 and 37, and which emits lights incident on the end face from the emitting face extending longitudinally of the guide, while the lights are reflected by the two internal side faces, wherein the sectional shapes of the two internal side surfaces are oval arc curves or paraboloid curves, and a concentrating position 32 of the lights reflected by one side face and a concentrating position 30 of lights reflected by the other side face are different from each other (see Figure 1, and paragraphs [0015]-[0019]).

4. Regarding claim 2, the light guide 10 is integrally formed as a unitary member (see Figure 1).

5. Regarding claim 3, the light guide 10 includes two half pieces 22 and 24 connected together, and oval arcs or paraboloids, which constitute reflective faces, are formed on the half pieces (see paragraph [0016] and Figure 1).

6. Regarding claim 5, *Patel* discloses a light guide 10 (see Figure 1) having an end face (back face), an emitting face (front face) and two internal side faces 35 and 37, and which emits lights incident on the end face from the emitting face extending longitudinally of the guide, while the lights are reflected by the two internal side faces, wherein the sectional shapes of both of the two internal side surfaces are oval arc curves, and a difference in focal distance between the oval arc curves causes concentrating positions 32 and 30 of reflected lights to be different (see Figure 1, and paragraphs [0015]-[0019]).

7. Regarding claim 6, *Patel* discloses a light guide 10 (see Figure 1) having an end face (back face), an emitting face (front face) and two internal side faces 35 and 37, and which emits lights incident on the end face from the emitting face extending longitudinally of the guide, while the lights are reflected by the internal side faces, wherein the sectional shapes of the internal side surfaces have two oval arc curves, and the concentrating positions 32 and 30 of reflected lights differ from one oval arc curve to the other (see Figure 1, and paragraphs [0015]-[0019]).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over *Patel* as applied to claim 3 above, and further in view of *Makoto* (US 2001/0035986).

10. Regarding claim 4, *Patel* does not disclose a light scattering part formed in connecting faces of the half pieces. However, *Makoto* discloses a light scattering part 41 b formed in connecting face of half pieces of a light guide 41 (see Figure 6b and paragraph [0090]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a light scattering piece between the half pieces 22 and 24 in *Patel* as taught by *Makoto* in order to uniformly scatter light towards the emitting face of the light guide 10.

11. **Claims 7-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over *Makoto*, and further in view of *Patel*.

12. Regarding claim 7, *Makoto* discloses an image reading device with an illuminating unit 2L comprising a light guide 3, a light source 4 provided at an end face of the light guide, and a lens array 12 for converging on a light receiving element lights radiated from the illuminating unit toward a document and reflected by the document or transmitted by the document, and a box 11 housing the illuminating unit, the lens array and the light receiving element (see Figures 1 and 2, and paragraphs [0070]-[0076]). Although the light guide 3 in *Makoto* is not the light guide described in claim 1, *Patel* discloses the light guide described in claim 1 as shown above. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the light guide 3 in *Makoto* to resemble the light guide disclosed in *Patel* in order to provide two separate converging points for the light guide.

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13. Regarding claim 8, the image reader includes two sets of illuminating units 2L and 2R and are arranged as to cause lights emitted from the emitting faces of the light guides thereof to irradiate the same area of an illuminated face of the document (see Figure 2 and paragraph [0070]).

14. Regarding claim 9, *Makoto* discloses an image reading device with an illuminating unit 2L comprising a light guide 3, a light source 4 provided at an end face of the light guide, and a lens array 12 for converging on a light receiving element lights radiated from the illuminating unit toward a document and reflected by the document or transmitted by the document, and a box 11 housing the illuminating unit, the lens array and the light receiving element (see Figures 1 and 2, and paragraphs [0070]-[0076]).

Although the light guide 3 in *Makoto* is not the light guide described in claim 5, *Patel* discloses the light guide described in claim 1 as shown above. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the light guide 3 in *Makoto* to resemble the light guide disclosed in *Patel* in order to provide two separate converging points for the light guide.

15. Regarding claim 10, the image reader includes two sets of illuminating units 2L and 2R and are arranged as to cause lights emitted from the emitting faces of the light guides thereof to irradiate the same area of an illuminated face of the document (see Figure 2 and paragraph [0070]).

16. Regarding claim 11, *Makoto* discloses an image reading device with an illuminating unit 2L comprising a light guide 3, a light source 4 provided at an end face of the light guide, and a lens array 12 for converging on a light receiving element lights

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radiated from the illuminating unit toward a document and reflected by the document or transmitted by the document, and a box 11 housing the illuminating unit, the lens array and the light receiving element (see Figures 1 and 2, and paragraphs [0070]-[0076]).

Although the light guide 3 in *Makoto* is not the light guide described in claim 5, *Patel* discloses the light guide described in claim 6 as shown above. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the light guide 3 in *Makoto* to resemble the light guide disclosed in *Patel* in order to provide two separate converging points for the light guide.

17. Regarding claim 12, the image reader includes two sets of illuminating units 2L and 2R and are arranged as to cause lights emitted from the emitting faces of the light guides thereof to irradiate the same area of an illuminated face of the document (see Figure 2 and paragraph [0070]).

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Gramling whose telephone number is (571) 272-9082. The examiner can normally be reached on MONDAY-FRIDAY 7:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on (571) 272-2378. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

S.P.G.

Sean P Gramling
Examiner
Art Unit 2875


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